# Vasily M. Goncharenko

#### **Personal**

webpage: http://www.fa.ru/university/persons/Pages/view.aspx?ProfileId=9578

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Full Name: Vasily Mikhailovich Goncharenko

Born: 13 October 1972, Moscow, Russia.

Citizenship: Russian

Marital status: married, 1 child

## Fields of interest

Integrable systems, spectral theory, financial mathematics, applied methods in economics and finance.

# Present affiliation

Associate Professor, Deputy Head of the Department of Applied Mathematics Financial University under the Government of Russian Federation, Moscow

## **Contact information**

49 Leningradsky Prospekt,

Department of Applied Mathematics

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### **Education**

#### December 1996 - December 1999

PhD student, Loughborough University, UK,

PhD title: Matrix Schrödinger operators and Darboux transformations" (submitted December 1999, confirmed March 2000)

#### October 1994 - October 1996

Postgraduate study at Moscow State University

Department of Higher Geometry and Topology

Cand.Sc. thesis title: "Matrix Schrödinger operators with trivial monodromy" (submitted April 2000, confirmed January 2001)

## **September 1989 - June 1994**

Diploma (with honour) in Mathematics and Applied Mathematics,

Moscow State University

Department of Higher Geometry and Topology

Diploma title: "On invariant measure for nonholonomic RL-systems on Lie groups" (published in Vestn. Mos. Univ., 2 (1995), 83-84).

## Teaching experience

### February 1998 - December 1999

Loughborough University, 2-6 hours per week (tutorials: calculus, linear algebra, complex analysis, ODEs).

### **September 2000 – present:**

Financial University (former Financial Academy), Moscow, 6-10 hour per week (lectures, tutorials on

- Calculus,
- Linear Algebra,
- Probability Theory and Statistics (in Russian and English),
- Operations Research,
- Economical Applications of Linear Programming,
- Financial Mathematics (in Russian and English),
- Methods of Optimal Solutions,
- Quantative methods of investment analysis (in English),
- Applied methods in Economics and Finance (in English),
- Game models in economics and finance (in English).

### **September 2012 – present:**

International programs of London University, Moscow, 4-8 hour per week (tutorials)

- Calculus, Further Calculus
- Mathematics-1, 2
- Statistics-1, 2.

# List of main publications (papers in peer-reviewed journals)

- 1. V.M. Goncharenko. On an invariant measure for nonholonomic RL-systems on Lie groups. (Russian) Vestnik Moskov. Univ. Ser. I Mat. Mekh. 2 (1995), 83 84; (Translated in Moscow Univ. Math. Bull. 50, 2 (1995), 53 54).
- 2. V.M. Goncharenko, A.P. Veselov. Monodromy of the matrix Schrödinger equations and Darboux transformations. J. Phys. A: Math. Gen 31 (1998), 5315 5326.
- 3. O.A. Chalykh, V.M. Goncharenko, A.P. Veselov. Multidimensional integrable Schrödinger operators with matrix potentials. J. Math. Phys. 40, 11 (1999), 1 15.
- 4. V.M. Goncharenko. On monodromy of matrix Schrödinger equations and interaction of matrix solitons. Russian Math. Surveys. 55, 5 (2000), 174 175.

- 5. V.M. Goncharenko. On multisoliton solutions of the matrix KdV equations. Theor. Math. Phys, 126, 1 (2001), 102 114.
- 6. V.M. Goncharenko, A.P. Veselov. Yang–Baxter maps and matrix solitons. New Trends in Integrability and Partial Solvability. Netherlands. Kluwer Academic Publishers (2004), 191 197.
- 7. V.M. Goncharenko, I.E. Denezhkina. Financial crisis and tax regulations. Lessons and prospects. M: Economics. Taxes. Law, 6 (2012), 72-76 (in Russian).
- 8. A.B. Shapoval, V.M. Goncharenko. Monopolistic competition in two-sector economy and demand uncertainty. Spatial economics, 3 (2014), 12-25 (in Russian).
- 9. V.M. Goncharenko, I.E. Denezhkina, V.J. Popov, A.B. Shapoval. On the role of mathematics in modern economic science. Vestnik Fin. Univ. 5 (2014), 131-136 (in Russian).
- 10. V.M. Goncharenko, A.B. Shapoval. Monopolistic competition in a two-sector economy: the relative scale effect. Economic science of modern Russia, 4 (83) (2015), 20 31 (in Russian).
- 11. A. Shapoval, V. Goncharenko Mismatch of Supply and Demand as a Response to Demand Uncertainty. Journal of Mathematical Sciences, 2016, V. 216, 633–648.

#### Main books and textbooks

- 1. V.A. Babaitsev, V.M. Goncharenko, I.G. Shandra. Mathematics for economists. Linear Algebra (training manual), Financial Academy (2003), 1 108.
- 2. V.M. Goncharenko, V.J. Popov. Economical applications of linear programming (training manual), Financial academy (2003), 1 130.
- 3. V.M. Goncharenko. Mathematical models and methods of operations research (training manual), Financial academy (2007), 1-101.
- 4. V.M. Goncharenko, S.R. Svirschevsky. Calculus. Chapters 5-6: ODEs, Series (training manual), M.: Financial University (2009, 2013), 1 109.
- 5. I.A. Alexandrova, V.M. Goncharenko. Methods of optimal solutions (training manual), Financial University (2012), 1 110.
- 6. I.A. Alexandrova, V.M. Goncharenko etc. (Editors: V.M. Goncharenko, V.J. Popov). Methods of optimal solutions in Economics and Finance (textbook). M.: Knorus (2013, 2014, 2015, 2016), 1 400.
- 7. V.M. Goncharenko, A.K. Kerimov, V.U. Popov. Linear optimization problems (training manual), Financial University (2013), 1 130.
- 8. I.A. Alexandrova, V.M. Goncharenko etc. (Editors: V.M. Goncharenko, V.U. Popov). Mathematical Methods in Economics and Finance (textbook), M.: Knorus (2016), 1-600.
- 9. V.M. Goncharenko, M.S. Elaeva, A.B. Shapoval. The imbalance of supply and demand in uncertainty conditions (monography), Forum-Infra-M (2015), 1-88.

### Main conferences

- 1. International scientific conference "ISLAY 1: Darboux transformation and Bilinear Methods" (Scotland, 1999).
- 2. International scientific conference "Mathematics. Computer. Education" (Dubna, Puschino, 2011-2015).
  - 3. Second Russian Economic Congress (Suzdal, 2013).
- 4. International scientific conference "Education, Science and Economics in Universities and Schools. Integration in the international space" (Tsakhkadzor, Armenia, 2014).
- 5. "System modeling of social-economic processes" International scientific school-seminar (Sochi 2014, Kazan 2015).
- 6. International conference "Integrability in algebra, geometry and physics: new trends" (Switzerland, 2015).

#### Grants

- 1. Monopolistic competition under uncertainty, granted by Economics Education and Research Consortium (EERC), grant 12-581, executive (2012-2013).
- 2. Decision making under uncertainty of financial assets, granted by Russian Government and Financial University, executive (2013).
- 3. The imbalance of supply and demand in uncertainty conditions assets, granted by Russian Government and Financial University, executive (2014).
- 4. A Response of the Economy to Changes in Employment Structure, granted by Economics Education and Research Consortium (EERC) grant 15-0431, executive (2015-2016).

#### Awards

Prize of the Rector of the Financial University (2014)

# Computer skill

- Maple
- MatLab
- Book preparation in TEX